

CLAIMS

1. A process for producing an epoxide compound,
which comprises reacting an olefin compound with hydrogen
5 peroxide in the presence of:

a metal oxide catalyst obtained by reacting hydrogen
peroxide with at least one member selected from the group
consisting of tungsten metal, molybdenum metal, tungsten
compounds composed of tungsten and a Group IIIb, IVb, Vb,
10 or VIb element, tungstic acid and salts thereof, molybdenum
compounds composed of molybdenum and a Group IIIb, IVb, Vb,
or VIb element, and molybdic acid and salts thereof;

at least one member selected from the group consisting
of tertiary amine compounds, tertiary amine oxide compounds,
15 nitrogenous aromatic compounds, and nitrogenous aromatic N-
oxide compounds; and

a phosphoric acid compound.

2. The process for producing an epoxide compound
according to claim 1, wherein the Group IIIb element is
20 boron.

3. The process for producing an epoxide compound
according to claim 1, wherein the Group IVb element is
carbon.

4. The process for producing an epoxide compound
25 according to claim 1, wherein the Group Vb element is

phosphorus.

5. The process for producing an epoxide compound according to claim 1, wherein the Group VIb element is oxygen or sulfur.